Publication list for David Bruce Stephens

David Bruce Stephens
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Rice University

University of Notre Dame

Trinity College Dublin

NASA Glenn Research Center

These articles were published with my advisor Scott C. Morris at the University of Notre Dame, on material from my dissertation: [1][2][3]. This paper was published with my faculty colleague Gareth J. Bennett at Trinity College Dublin while I was on an Erasmus fellowship[4]. These papers were published from NASA Open Rotor data[5][6][7][8][9][10]. I was a contributor to these papers[11][12].

Selected Journal and Conference Publications

[1] David B. Stephens and Scott C. Morris. Sound generation by a rotor interacting with a casing turbulent boundary layer. *AIAA Journal*, 47(11):2698–2708, 2009.

[2] David B. Stephens and Scott C. Morris. A method for quantifying the acoustic transfer function of a ducted rotor. *Journal of Sound and Vibration*, 313:97–112, 2008.

[3] David B. Stephens and Scott C. Morris. Measurements and modeling of the self noise of a low-speed ducted rotor. *International Journal of Aeroacoustics*, 10(5-6):613–634, 2011.

[4] David B. Stephens, Francisco R. Verdugo, and Gareth J. Bennett. Shear layer driven acoustic modes in a cylindrical cavity. *Journal of Pressure Vessel Technology*, 136(5), 2014.

[5] David B. Stephens and Edmane Envia. Acoustic shielding for a model scale counter-rotation open rotor AIAA-2011-2940. *NASA TM-2012-217227*, January 2012.

[6] David B. Stephens. Nearfield unsteady pressures at cruise mach numbers for a model scale counter-rotation open rotor AIAA-2012-2264. *NASA TM-2012-217672*, September 2012.

[7] David B. Stephens. Acoustic performance of drive rig mufflers for model scale engine testing. *NASA TM-2013-217885*, June 2013.

[8] Dave Sree and David B. Stephens. Tone and broadband noise separation from acoustic data of a scale-model contra-rotating open rotor AIAA 2014-2744. *20th AIAA/CEAS Aeroacoustics Conference, Atlanta, GA*, June 2014.

[9] David B. Stephens and Håvard Vold. Order tracking signal processing for open rotor acoustics. *Journal of Sound and Vibration*, 333:3818–3830, 2014.

[10] David B. Stephens. Data summary report for the open rotor propulsion rig equipped with F31/A31 rotor blades. *NASA TM-2014-216676*, November 2014.

[11] Stephen A. Rizzi, David B. Stephens, Jeffrey J. Berton, Dale E. Van Zante, John P. Wojno, and Trevor W. Goerig. Auralization of flyover noise from open rotor engines using model scale test data AIAA 2014-2750. *20th AIAA/CEAS Aeroacoustics Conference, Atlanta, GA*, June 2014.

[12] Parthiv N. Shah, Håvard Vold, Dan Hensley, Edmane Envia, and David Stephens. A high-resolution, continuous-scan acoustic measurement method for turbofan engine applications. *Journal of Turbomachinery (In Publication)*, 2015.